Adm - 13.2

DD/S&T# *30 75- 72/*

OCS 833-72
1 0 AUG 1972

MEMORANDUM FOR: Executive Officer, DD/S&T

SUBJECT : OMB Circular A-44 (Revised) "Management Review and Improvement Program"
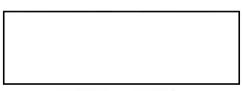
REFERENCE : DD/S&T 7075-72 dated 17 July 1972, same subject

Forwarded herewith is the OCS contribution to OMB Circular

A-44 (Revised).

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JOHN D. IAMS
Director of Computer Services

Attachments
  Section IV
  Section VII

Distribution:
  O + 1 - adse w/att.
    2 - DD/S&T Registry w/atts.
    1 - OCS Registry w/att.
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O/D/OCS/ _____ /8-9-72
    1 - OCS Div/Staff Chiefs

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SECTION IV - <u>AUTOMATIC DATA PROCESSING (ADP) IMPROVEMENTS</u>

	Identification of Program or Function	Description of Improvement
2. Significant improvements in the management of computer facilities and resources		
a. Planned for current year (FY-73)	Information Processing and Exploitation, Central ADP Services	1. <u>Phase out of RCA Computer Systems</u>. The RCA Spectra 70/35 and Spectra 70/45 computer systems will be re- leased during the first quarter of FY-73 and the work from these systems will be handled on the extant IBM Systems.
		2. <u>Mass Storage</u>. In FY-72 OCS began to look into new technology which would permit the storing of very large amounts of data on-line to reduce the size of the magnetic tape library and the manual operations concerned with the storing and mounting of tapes. It is possible that a less than full scale test of such a system could be con- ducted towards the end of FY-73 and, if successful, a production system could be in operation during FY-74.
		3. <u>Computer Graphics</u>. OCS is studying ORD's research in a new system of computer graphics, the Anagraph system. This development could lead to replacements or changes in the OCS equipment used for graphics

SECTION IV - AUTOMATIC DATA PROCESSING (ADP) IMPROVEMENTS (Continued)

Identification of
Program or Function

Description of Improvement
applications such as the IBM 2250
and the BR 90. The objective here
is to obtain a lower cost graphic
system which could be used for a
wider group of users.

4. Computer Measurement. A con-
siderable effort has been spent during
FY-72 to develop new and better computer
measurement techniques so that the
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of these processes is projected.

5. ADP Standards. During FY-72 OCS
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staffs on the development of certain ADP
standards which can be more widely
applied to all computer components in
the Agency. These activities should
reach fruition in two areas during FY-73:
"Standard Operating Procedure for
Computer Centers" and "Qualifications,
Career Development, and Training
Requirements for Computer Operators
and Systems Programmers".

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SECTION IV - <u>AUTOMATIC DATA PROCESSING (ADP) IMPROVEMENTS</u> (Continued)

	Identification of Program or Function	Description of Improvement
b. Achieved during past year (FY-72)	Information Processing and Exploitation, Central ADP Services	1. Development of Generalized Information Management System (GIMS). During FY-72 the major portion of the effort to develop an on-line generalized information management system (GIMS) was completed. The objective here is to develop a single system which will replace as many of the existing on-line systems as possible and to eliminate the need for developing additional systems of this type for at least the next five years. By developing a generalized system of sufficient scope and capability, the requirements of a large number of computer users can be met without the need for developing tailor-made systems for each user. The saving in programming effort, user indoctrination, and application effort will be significant over the life of the system. The development of GIMS was carried out jointly by OCS personnel and [ ] whose basic GIMS system was modified and enhanced to meet OCS specifications. As of the end of the fiscal year, some work on the GIMS system still remained, but it was anticipated that the system would complete acceptance testing early in FY-73 and its first application to a very large project, the Support Information Processing System (SIPS), would begin.

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SECTION IV - <u>AUTOMATIC DATA PROCESSING (ADP) IMPROVEMENTS (Continued)</u>

Identification of
<u>Program or Function</u>

<u>Description of Improvement</u>

2. <u>Consolidation of Computer Operations
Concerned with Signal Analysis and
Processing Performance by OEL, ORD,
OCS.</u> After considerable study and
coordination with ORD, OEL, OL, and
CRS, the Director of OCS submitted a
recommendation for the consolidation
of selected computer-related activities
(Signal Analysis) into Headquarters

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ing, and similar activities in OEL and
ORD into a Headquarters Signal Analysis
and Processing Center, thus achieving
a closer working relationship among
these components and their users, re-
ducing contractor supplied analysis and
support, and saving office and equipment
space.

Eventual discontinuance of ORD's IBM
360/50 at Ames was projected. In the
first phase of this move, CRS agreed to
make available space in its computer room
for the ORD hybrid facility. Out-of-
pocket costs were estimated to be between

SECTION IV - <u>AUTOMATIC DATA PROCESSING (ADP) IMPROVEMENTS</u> (Continued)

<u>Identification of
Program or Function</u>

<u>Description of Improvement</u>

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for the full
plans. The Executive Director-
Comptroller approved only the move
of the hybrid facility, adding that the
implications of additional phases of
the consolidation needed further study.
By the first week of FY-73, the re-
location of the ORD hybrid facility had
been completed.

3. <u>OCS Configuration Board.</u> In September
1971 an OCS Configuration Board was
established and it met weekly thereafter.
The purpose of the Board was to review
the performance of computer systems
and plans for changes in hardware and
software so that greater reliability and
productivity could be obtained from OCS
computer resources.

4. <u>Resource Accounting and Pricing System.</u>
A system was developed to produce
management reports showing the computer
resources and prices for jobs processed
in the OCS Computer Center. The first
report, an annual report by user office,
was completed and scheduled for release
early in August 1972 with monthly reports
and quarterly reports scheduled there-
after.

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Identification of
Program or Function

Description of Improvement

5. Installation of non-IBM Computer Components. The continuing effort to utilize computer equipment which is competitive with IBM in terms of capability, performance, and cost resulted in the procurement of a substantial number of components ranging from CRT terminals to core memory units. By the end of the fiscal year, replacement equipment consisted of:

2 AMPEX Memory Units
8 CALCOMP Disk Units
3 MEMOREX Communications
    Controllers
2 DATA 100 Remote Job Entry Terminals
1 REMCON Remote Job Entry Terminals
8 DELTA DATA CRT Terminals
1 DATEL Typewriter Terminal.

6. Installation of Attached Support Processor System (ASP). The Attached Support Processor System (ASP) represents a major change in hardware configuration, system software, and resource scheduling concepts. The system allows sharing of peripheral units by two or more interconnected computers (in this instance, two IBM 360/65's). During June, July and August 1971, implementation of this system raised considerable

6

SECTION IV - <u>AUTOMATIC DATA PROCESSING (ADP) IMPROVEMENTS</u> (Continued)

Identification of
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frustration among users, operators, and programmers because of instability in the system resulting from reconfiguring of equipment, system software problems, hardware malfunctions, new operating procedures, and, in general, the enormity of the changeover. By September, the ASP System had smoothed out considerably and an estimated 25% increase in productivity over the previous system was being realized. When the IBM 360/195 system was installed towards the end of the fiscal year, it was tied into the two 360/65's to make a triplex ASP System.

7. <u>Fixed Term Contracts</u>. Some 42 IBM components were placed on a fixed term contract for FY-72 to gain the advantage of reduced rentals under this plan.

8. <u>OCS Resource Management Board</u>. A Resource Management Board was established in OCS and it met on a monthly basis to approve the initiation of new projects and review on-going projects where the cost is more than [   ]

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SECTION IV - AUTOMATIC DATA PROCESSING (ADP) IMPROVEMENT (Continued)

Identification of Program or Function	Description of Improvement
	9. OCS-IBM Joint Management Meetings. A program of weekly meetings with IBM sales and customer engineering management was initiated--the objective: to improve communications, service, and IBM support in general.
	10. Improved Computer Environment and Electrical Facilities. A number of renovations to the OCS computer room were made to improve cooling and humidification, thus reducing computer down time caused by improper environmental conditions. Also, a rather unique motor generator system for 60 cycle and 400 cycle computer power was installed which greatly reduced computer failures caused by transients or momentary power interruptions.
	11. Technical Review of Agency-wide ADP Proposals for Hardware or Software. In February 1972 the Executive Director-Comptroller directed that the Office of Computer Services be responsible for a technical review and recommendation for all ADP proposals submitted to him for approval. By the end of the fiscal year, eighteen such proposals had been reviewed.

SECTION VII - COST REDUCTIONS

1. Overall cost reduction dollar savings goal for current year

☐   25X1

2. Overall cost reduction dollar saving achieved or estimated for:

Use of Savings	Past Year-FY 72	Current Year-FY 73	Budget Year-FY 74
25X1 a. Finance other approved requirements of the reporting unit.	☐	-	-
b. Reprogrammed to finance other approved require-ments.	-	-	-
c. Placed in reserve or applied to reducing the President's budget.	-	-	-

3. Summary descriptions of past year cost reduction achievements.
   25X1   During FY 72 approximately ☐ was saved in
   ADP rentals as follows:

   a. Use of fixed term contract for some 47 IBM components consisting of drums, disk storage drives, and control units.

   b. Use of Calcomp Disk Storage Devices in place of IBM Disk Storage Devices.

                                                    Total   25X1

DD/S&T# 2675-721

OCS 833-72

1 0 AUG 1972

MEMORANDUM FOR: Executive Officer, DD/S&T

SUBJECT : OMB Circular A-44 (Revised) "Management Review and Improvement Program"

REFERENCE : DD/S&T 2075-72 dated 17 July 1972, same subject

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